Neolith Technical Manual

DESIGN, HANDLING AND MECHANIZATION KITCHEN COUNTERTOPS info@neolith.com www.neolith.com

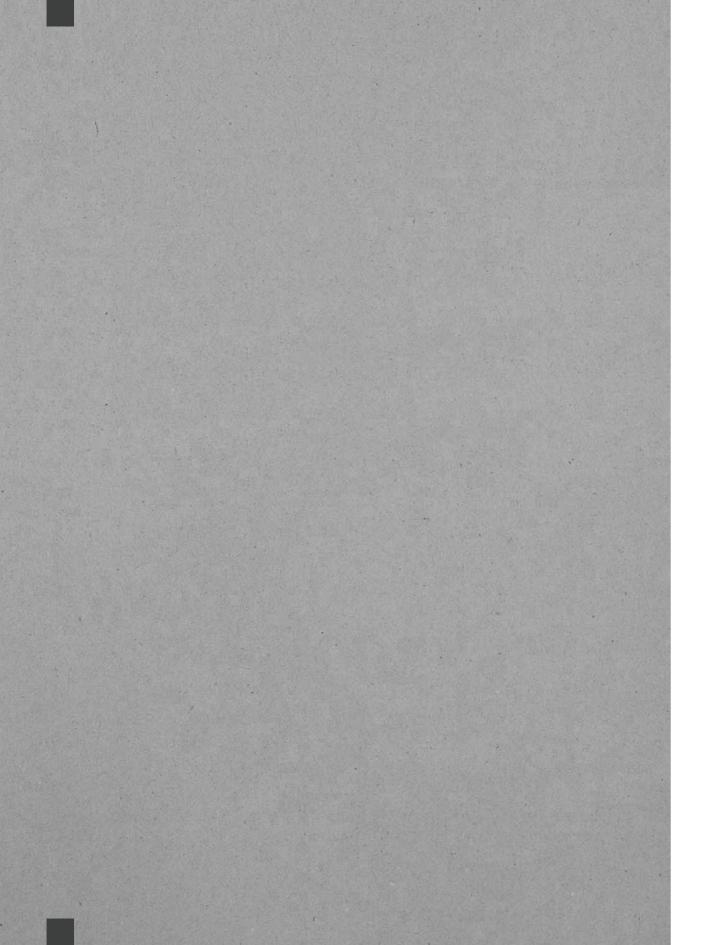
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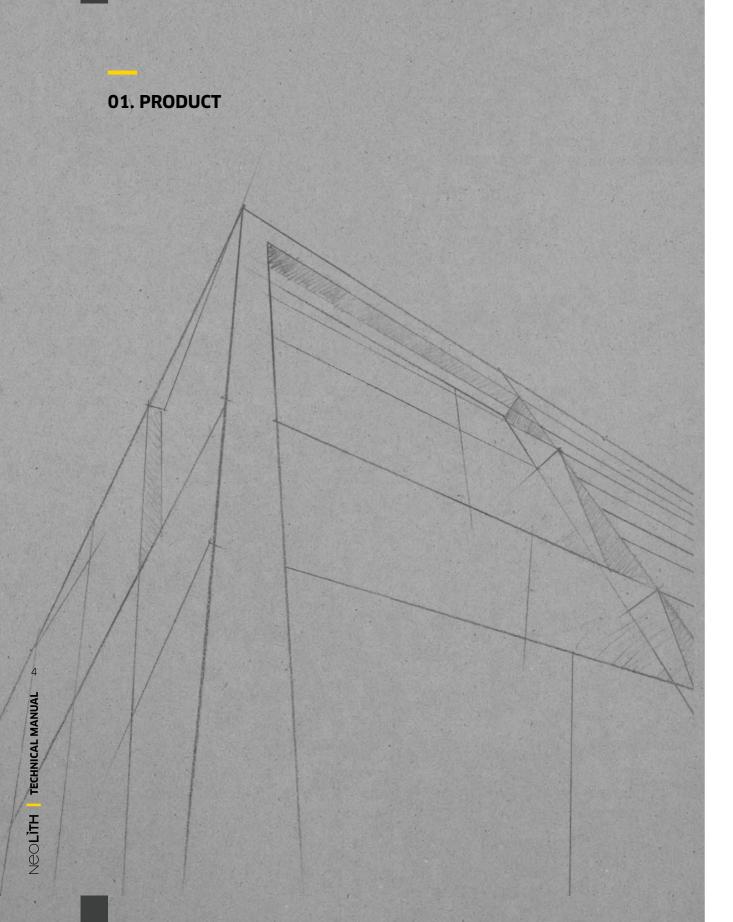
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Due to the uniqueness of the materials used in North America to produce kitchen countertops, a specific countertop manual was created for this market which is only applicable in the USA and Canada. The "Technical Kitchen Countertop Manual" should be used in all other countries of the world.

Each marble producer must follow the manual that corresponds to their market in order to ensure proper production pursuant to the typical local materials.

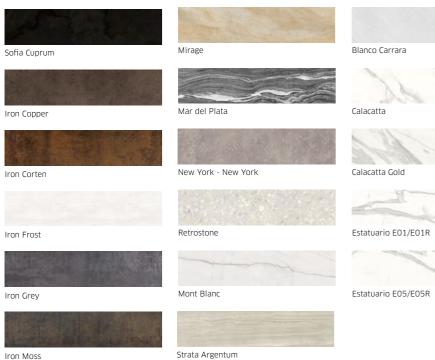




1.1 Product Range



1.1 Product Range



Iron Moss



Textil White

La Bohème B01



Nero Marquina

Pulpis



1.2 Finishes











SATIN

Completely matte finish. Highly resistant and ideal for commercial uses.

SILK

A matte finish with a light layer of enamel for subtle shine and a pleasant soft touch. Surface finish which is easy to clean.

RIVERWASHED

Finish with a rugged texture and high relief for surfaces that evoke feelings upon touch.

DÉCOR POLISHED

Décor Polished offers a perfectly linear reflection of the Classtone Collection colors, which gain depth and elegance.

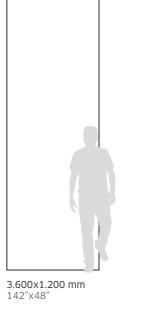
NANOTECH POLISHED

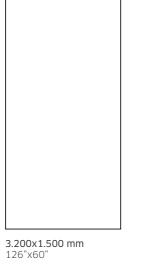
With a high shine level, Nanotech Polished offers the Colorfeel Collection a more sophisticated image.

1.3 Formats



1.4 Thicknesses

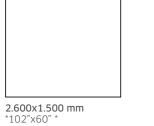






3.200x1.600 mm 126"x64"

2.600x1.200 mm 102"x48"



The measures above are **net measures**. Please note that unless it is specified in the order, the slabs will be delivered in gross measure (eg: 3.250x1.550mm instead of 3.200x1.500mm) in order to prevent any type of break in the peaks during transport and logistics affect the usable net measure of the table.

* This format is only available for projects. Not in permanent stock. Please ask for minimum quantities.

| 3 mm - 1/8" | — |
|---------------------|----------|
| 6 mm - 1/4" | |
| 12 mm - 1/2" | |
| 20 mm - 3/4" | |

| | 3 (1/8") | 3+ (1/8") | 6 (1/4") | 6+ (1/4") | 12 (1/2") | 20 (3/4") |
|---------------------------------------|-------------|--------------|-------------|--------------|--------------|--------------|
| Indoor paneling | ٠ | • | ٠ | ٠ | | |
| Indoor paving | | | ٠ | • | | • |
| Outdoor natural stone facade | | | ٠ | • | • | |
| Outdoor paving | | | ٠ | • | | • |
| Ventilated facade with exposed anchor | | | | • | • | |
| Ventilated facade with hidden anchor | | | | ٠ | ٠ | |
| Countertops | | | | | • | • |
| High-traffic paving | | | | • | ٠ | • |
| Indoor paneling over the material | • | • | • | • | | |
| Indoor paving over the material | | | ٠ | • | | |
| Furniture | • | • | • | • | • | |

| TEST | FINISH | | | | | |
|--------------------------|-------------------------|--|-------|---------|----------|-------------|
| IESI | ASTM | Unit | SATIN | SILK | POLISHED | RIVERWASHED |
| Moisture expansion | ASTM C370-12 (2016) | % | <0,1% | <0,1% | <0,1% | <0,1% |
| Linear Thermal expansion | ASTM C372-94 (2016) | (x10 ⁻⁶) °C ⁻¹ | 5,7 | 5,8 | 5,3 | 6,1 |
| Water absorption | ASTM C373-16 | % | <0,1% | <0,1% | <0,1% | <0,1% |
| Crazing resistance | ASTM C424-93 (2016) | - | ОК | ОК | ОК | ОК |
| Thermal Shock resistance | ASTM C484-99 (2014) | - | ОК | ОК | ОК | ОК |
| Chemical resistance | ASTM C650-04 (2014) | - | ОК | ОК | ОК | ОК |
| Visible abrasion | ASTM C1027-09 | Class | *PTR | Class 3 | Class 5 | *PTR |
| Deep abrasion | ASTM C1243-93 (2015) | mm ³ | 112 | *PTR | *PTR | *PTR |
| Stain resistance | ASTM C1378 (2014) | Class | А | А | А | A |

| TECT | NODM | | 11 | FINISH | | | | |
|---------------------------------------|---------------|---------------------------------------|-----------------------|------------|------------|------------|------------|--|
| TEST | NORM | DETERMINATION | Unit | SATIN | SILK | POLISHED | RIVERW. | |
| | | Thickness * | mm | ± 0,2 | ± 0,2 | ± 0,2 | ± 0,2 | |
| Determination of Dimen- | 150-10545-2 | Flatness Tolerance Width Slab | mm | ± 2 (0,1%) | ± 2 (0,1%) | ± 2 (0,1%) | ± 2 (0,1%) | |
| sions and Surface Quality | 130-10343-2 | Flatness Tolerance Lenght Slab | mm | ± 4 (0,1%) | ± 4 (0,1%) | ± 4 (0,1%) | ± 4 (0,1%) | |
| | | DImension Tolerance | mm | ± 1 (0,2%) | ± 1 (0,2%) | ± 1 (0,2%) | ± 1 (0,2%) | |
| Water Absorption Capacity | ISO-10545-3 | Absorption by Boiling | % | ≤ 0,1 | ≤ 0,1 | ≤ 0,1 | ≤ 0,1 | |
| Water Absorption capacity | 150 10545 5 | Density | gr/cm ³ | 2,4 | 2,4 | 2,4 | 2,4 | |
| Impact Resistance | ISO-10545-5 | Coefficient of Restitution | - | 0,84 | 0,83 | 0,83 | 0,83 | |
| Resistance to Deep Abrasion | ISO-10545-6 | Lost Volume | mm³ | 112 | - | - | - | |
| Resistance to Superficial Abrasion | ISO-10545-7 | Visual Control | Class | PEI III | PEI II | PEI I | PEI II | |
| Linear Thermal Expansion | ISO-10545-8 | Expansion 25 - 100°C (Average) | 10 ⁻⁶ . °C | 5,7 | 5,7 | 5,7 | 5,7 | |
| Thermal Shock | ISO-10545-9 | Damage | - | No Damage | No Damage | No Damage | No Damage | |
| Moisture Expansion | ISO-10545-10 | Coefficient of Expansion | mm/m | < 0,1 | < 0,1 | < 0,1 | < 0,1 | |
| Frost Resistance | ISO-10545-12 | Damage | - | No Damage | No Damage | No Damage | No Damage | |
| | | Cleaning Products | Class | UA | GA | GA | GA | |
| | | Swimming Pool Salts | Class | UA | GA | GA | GA | |
| Chemical Resistance | ISO-10545-13 | Low Concentration Acids and Bases | Class | ULA | GLA | GLB | GLA | |
| | | High Concentration Acids and Bases | Class | UHA | GHA | GHB | GHA | |
| Stain Resistance | ISO-10545-14 | Visual Control | Class | 5 | 5 | 5 | 5 | |
| Lead and Cadmium Release | ISO-10545-15 | Lead Concentration | mg/dm² | <0,01 | <0,01 | <0,01 | <0,01 | |
| Lead and cadmion Release | 150 10545 15 | Cadmium Concentration | mg/dm² | <0,001 | <0,001 | <0,001 | <0,001 | |
| UV Resistance | DIN 51094 | Color Change | - | No Change | No Change | No Change | No Change | |
| | DIN 51130 | Critical Angle with footwear | Class | R9 | R9 | - | R10 | |
| | DIN 51097 | Critical Angle Barefoot | Class | А | А | - | А | |
| Anti-Slip Properties | ANSI A137.1 | Dynamic Coefficient of Friction | - | 0,52 | 0,42 | 0,21 | 0,53 | |
| | UNE-ENV 12633 | Slip Resistance (Pendulum Method) | Class | 2 | 1 | 0 | 2 | |

1.5 Product Technical Characteristics

Bending Resistance as per the slab thickness:

| TEST | STAN- DARD | DETERMI- NATION | Unit | | 3600 x 1200 | | | | | : | 3200 x 150 | 00 | |
|-----------------------|----------------|-----------------------|-----------|------|-------------|------|------|------|------|------|------------|-------|-------|
| | | | | 3 mm | 3+ | 6 mm | 6+ | 3+3 | 6+3 | 6+6 | 6+ | 12 mm | 20 mm |
| Weight | - | Grammage | Kg/ m2 | 7 | 8 | 14 | 15 | 16 | 23 | 30 | 15 | 29 | |
| | | Mass | | 34 | 38 | 67 | 72 | 76 | 110 | 143 | 77 | 148 | |
| Bending Resistance | ISO 10545-4 | Breaking Force | N | 353 | 430 | 1449 | 1807 | 1337 | 2735 | 3149 | 1807 | 5451 | 15748 |
| | | Modulus of Rupture | N/ mm² | 48 | 54 | 48 | 53 | 47 | 57 | 47 | 53 | 51 | 55 |

02. HANDLING AND STORAGE

02. HANDLING AND STORAGE

Neolith slabs must be loaded, unloaded and transported by means of a forklift, bridge crane or other hoisting device.

Whenever handling and transporting, the slabs must be balanced taking their center of gravity into account.

The following table summarizes the weight per slab and per square meter:

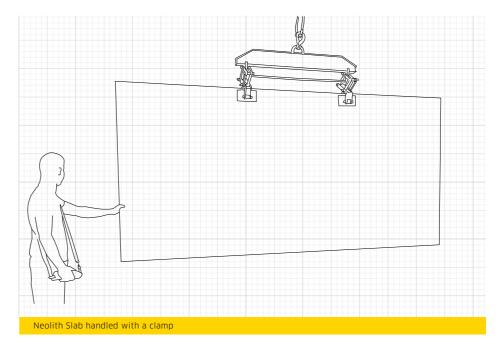
| Format | 3600 x 1200 mm, 144" x 48" | | | | | | | | | 125" x 60" 125" x 64" |
|-----------------------------|----------------------------|----|----|----|-----|-----|-----|----|-----|--------------------------|
| Thicknesses (mm) | 3 | 3+ | 6 | 6+ | 3+3 | 6+3 | 6+6 | 6+ | 12 | 20 |
| Weight (kg/m2) | 7 | 8 | 14 | 15 | 16 | 23 | 30 | 14 | 29 | 48 |
| Weight of full slab (Kg) | 34 | 38 | 67 | 72 | 76 | 110 | 143 | 77 | 148 | 245 |

Table 1: Formats and weights per thickness.

2.1 Transporting with a clamp

Always pay attention to the movement and handling of the slabs to prevent splintering or breakage.

TheSize recommends using the following type of clamp for lifting and moving individual slabs:



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TECHNICAL NeoLith

The additional width of this clamp will prevent the slab from bending during handling to, thus, prevent undesirable breakage.

This clamp is available through TheSize.

Contact TheSize for more details.

Recommendations:

- Clamping more than 2 slabs at the same time is not recommended.
- Before lifting polished slabs with the clamp, remove the protective plastic.

Make sure to cover all metal surfaces that may come into contact with the slab with adhesive foam tape.

Make sure to cover all metal surfaces that may come into contact with the slab with adhesive foam tape.

If this type of clamp is not available, use a 2 cm thick plank of approximately 3 m x 20 cm so the clamp can catch 12 mm slabs.

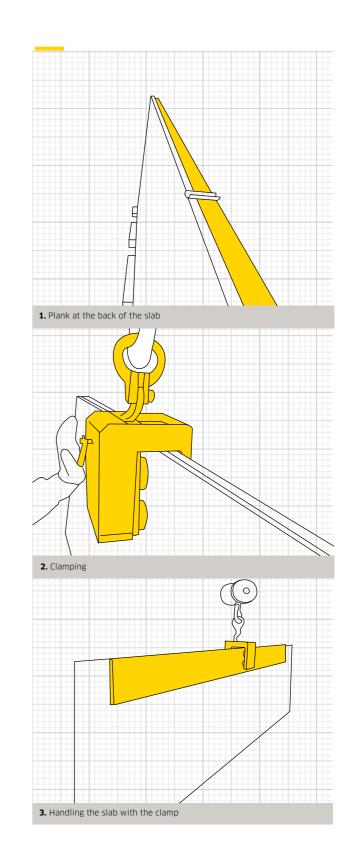
Fixing the ends of the slab with jacks to the plank so the slab doesn't sag during handling is recommended.

Position the plank to the rear of the slab to be lifted.

1) Place the clamp on the slab and the plank.

2) Fix the clamp and lift the slab and plank with care.

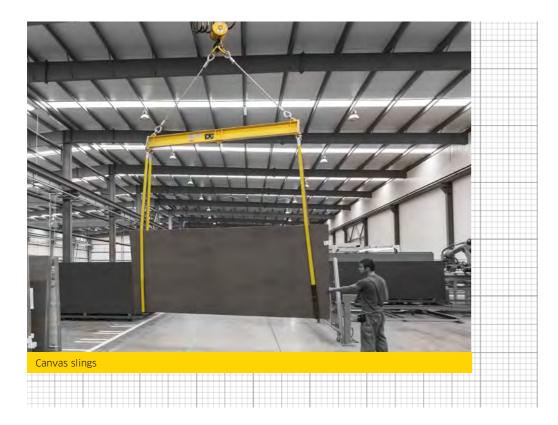
3) Avoid sudden changes in direction.



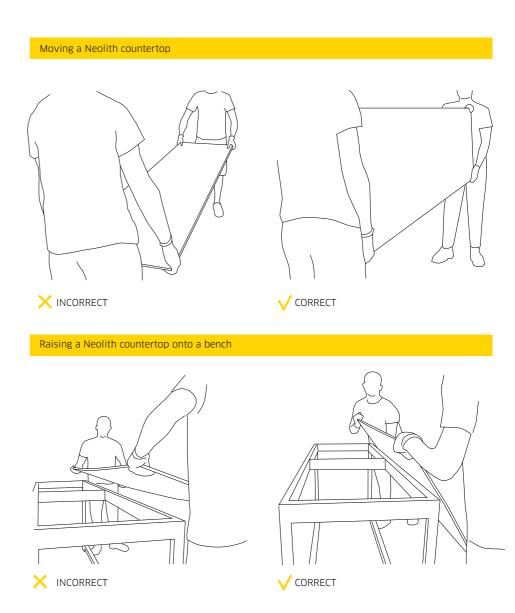
2.2 Transporting with slings

Using canvas slings to move several slabs at the same time is recommended.

Metal slings must not be used to handle Neolith slabs.



2.3 Manually transporting a Neolith slab



2.4 Suction frame

For easier handling of slabs and finished parts, using a suction frame is recommended (only for 3 and 6 mm slabs).

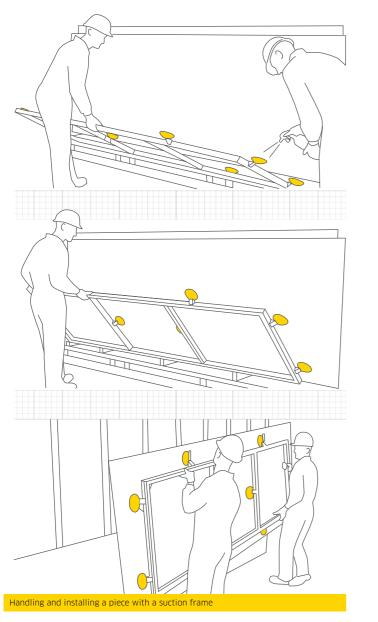
The suction cups can move easily along the frame which helps adapt the frame to any size slab needed.

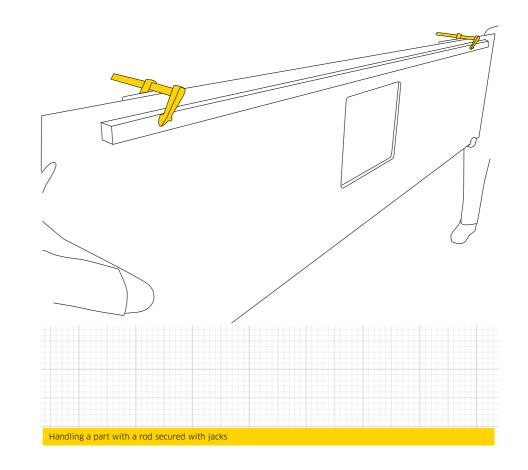
This frame can be purchased from TheSize. *Contact TheSize for more details.

If this type of frame is not available, an aluminum rod or similar element, secured with several jacks, can also be used.

This will prevent the part from bending too much during handling.

Fixing thin, long parts (skirting, for example) with jacks to an aluminum rod for transport is also recommended. This will prevent the part from bending too much during handling.





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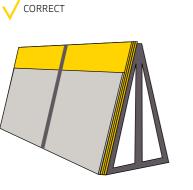
2.5 Slab storage

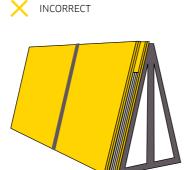
Place the slabs length-wise on wooden beams to prevent the slabs from splintering.



3 mm and 6 mm slabs need at least three support points, distributed evenly along the back of the slab; a full support is recommended - an unused granite or marble slab with sufficient width, for example. The best way to maintain the integrity of the slabs is to keep them in their original packaging or use a full support on the back of the slab such as an unused granite or marble slab which is wide enough.

Avoid positioning large slabs against smaller slabs:





The supports must be able to hold the entire surface of the part during transport. Supports that are too small may cause the part to break:





X INCORRECT



Storage of Neolith slabs in the shop

2.6 Transport by road

When in a truck, the slabs must be completely supported and securing the slabs mechanically (with jacks or belts) is recommended as they could become loose with strong wind and break.

Lightweight slabs and tiles may easily fall from a truck or to the ground so always secure the slabs to a sawhorse while unloading.

Pay special attention in the shop if the slabs are stored outdoors; secure the slabs to sawhorses to protect them from gusts of wind.

03. INSPECTION

Before beginning production, TheSize recommends deep-cleaning the slab and doing a meticulous visual inspection of the slab to check whether the slab complies with the quality requirements. Check these items when visually inspecting a slab:

| Fissures | Thickness | Pollution |
|----------------------------------|------------------|---------------|
| Stains | Shine variations | Pricks |
| The tones of the different slabs | Flatness | Imperfections |

This should be the first step prior to starting production. Doing the inspection against the light to identify possible imperfections not seen when flat is recommended.

*No claims will be accepted for installed or manufactured material when defects were already present upon delivery of the material. Marble workers are responsible for determining whether the slabs are adequate for use. If they are not adequate, they should be exchanged before the slabs are cut or modified in any way.

3.1.2 Tone

TheSize is constantly working so the tone of the current batches matches the tone of previous batches. Despite our efforts, slight variations in tone may occur between different batches of the same model due to the use of natural raw materials.

Deviations in tone are more noticeable among the various thicknesses of a single model given the way in which each thickness is produced.

Before cutting, visually inspect the slabs to ensure the tone of the different slabs is acceptable. Do this inspection under lighting conditions that are similar to what would be found at the place of installation. We recommend not combining slabs from different batches.

3.2 Slab identification

Each slab has a label with important information related to each slab. The labels must be recorded for future reference.



Veolith | Technical Manual

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3.1 Slab characteristics

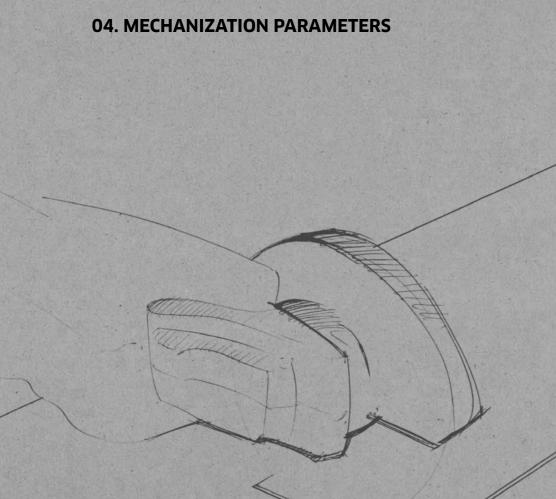
3.1.1 Flatness

To check the flatness of a slab, it should be positioned horizontally on a completely flat base.

The flatness is measured by placing an aluminum rod or similar object on the surface of the slab, covering the entire width or length of the slab.

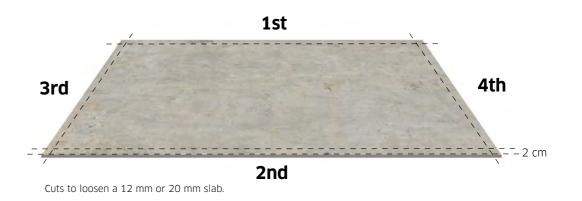


| MAXIMUM TOLERANCE IN THE SLAB WIDTH: | 2 mm |
|---------------------------------------|------|
| MAXIMUM TOLERANCE IN THE SLAB LENGTH: | 4 mm |

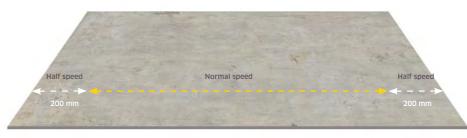


04. MECHANIZATION PARAMETERS

Before producing a 12 mm or 20 mm slab, it is important to remove 2 cm of each side from the slab:



When cutting 12 mm or 20 mm slabs with a disc, it is important to reduce the speed to half at the beginning and end of the cutting process.



These recommendations only apply to 12 mm and 20 mm slabs. Any other thickness can be cut without having to take these steps into account.

4.1 Parameters for the Ultra-compact Neolith disc

| Thickness | Straight Cut Speed (m/min) | 45º Angle Speed (m/min) | Ø Disc (mm) | RPM | Surface Speed (m/s) |
|---------------|-------------------------------|----------------------------|-------------|-------------|------------------------|
| 3+ | 3,5 | 1,7 | 300 | 2400 - 2600 | |
| 6 mm | 1,5 | 0,7 | | | |
| | | | 350 | 2300 - 2500 | |
| 6+ and 3+3 mm | 3,0 | 1,5 | | | 35 - 40 |
| 6+3 mm | 2,5 | 1,4 | | | |
| 12 mm /12+ | 1,5 | 0,7 | 400 | 2000 - 2150 | |
| 20 mm | 1,0 | 0,5 | 1 | | |

Table 3: Disc parameters.

4.2 Waterjet parameters

| Thickness | Speed (m/min) | Pressure (Bars) | Abrasive flow rate (kg/min) |
|------------------|---------------|-----------------|-----------------------------|
| 3 mm 3+ | 2 | | |
| 6 and 3+3 mm, 6+ | 2 | | |
| 6+3 mm | 2 | 3500-3700 | 0,4 |
| 12 mm | 1 | | |
| 20 mm | 0.7 | | |

Table 4: Waterjet parameters.

The values indicated are suggestions. The cutting speeds and abrasive flow rates can be adjusted for a cleaner finish.

4.3 Parameters for CNC tools.

| ТооІ | | RPM | Speed (mm/min) | |
|-------------------|-------|-------------|----------------|--|
| Crown bit | | 4500 - 5500 | 10 | |
| Cutting bit 12 mm | | 4500 - 5500 | 150 | |
| | 20 mm | 4500 - 5500 | 125 | |
| Router bit | | 8000- 10000 | 250 | |

Table 5: CNC parameters.

05. CUTTING RECOMMENDATIONS

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Neolith

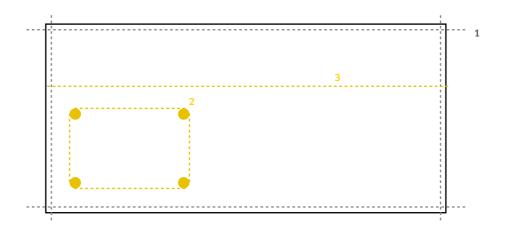
05. CUTTING RECOMMENDATIONS

5.1 Bridge disc or similar

Before beginning

Check that the bench is straight, level and free of any debris. Check that there is enough support for the slab.

While cutting, it's important to use the maximum water flow to cool the disc. Be sure the water flow is aimed at the cutting area.



CUTTING SEQUENCE:

Steps:

1. Perimeter cut, minimum 2 cm. (only for 12 mm and 20 mm).

2. Prepare the holes on all inner corners, minimum 3 mm bit diameter.

We recommend bits larger than 3mm when the kitchen design allows, as it will make the countertop firmer.

3. Prepare the **remaining cuts**.

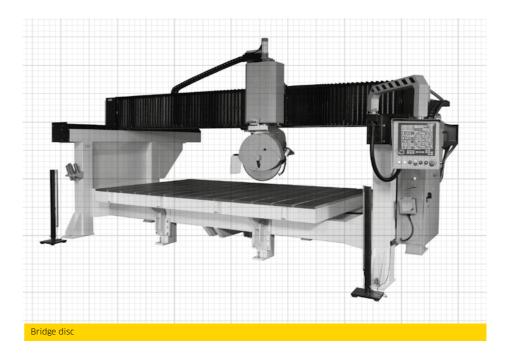
RECOMMENDATIONS:

- Make sure the disc rotation coincides with the cutting direction.
- The cutting disc should be at least 1.5 mm more than the slab thickness to guarantee a clean cut.
- To release stress, the perimeter cut of the slab may be used as a final cut for the part to be made.
- In the exceptional case that the disc is lowered directly onto the slab, do it in automatic mode at the slowest possible speed.
- Periodically check the support plates and don't use the disc if it does not easily fit into the support plate.
- Cutting 45° angles in Neolith requires a slower cutting speed. It also helps to have something at the head and tail of the cut to keep the disc aligned.
- When using a new disc, do a few cuts so the disc segments can adapt and the diamonds open.
- Use something made of limestone at the head and tail of the cut to enhance the segments if the segments become blunt faster than normal during straight cuts.
- All cutouts must have previously drilled holes:
- A minimum radius of 3 mm.
 - Never lower the disc directly on the slab before drilling the corners.

No squared inner corner means:

- No "L"-shaped countertop with 45° angled edges.
- No squared cutout for a sink.
- No inner 45° angled edge for the sink.
- Absolutely NO 90° CORNER.
- The clearest models (Arctic White, Estatuario, Calacatta) are harder for tools given the specific raw materials used.

TheSize recommends lowering the cutting speeds to 75% for these models to prevent the disc from overheating.



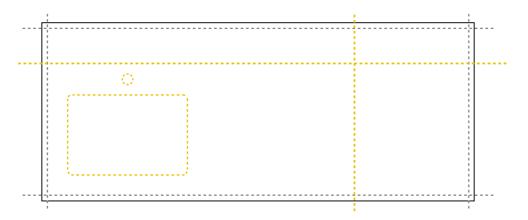
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5.2 Waterjet

Before beginning:

Check that the bench is straight, level and free of any debris. Check that there is enough support for the slab.

If using the waterjet to remove the 3/4" perimeters from 1/2" and 3/4" slabs, the cut should begin and go off the slab.



STEPS:

1 Perimeter cut, minimum 2 cm. (only for 12 mm and 20 mm)

2 Cutting.

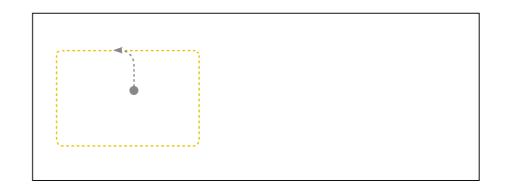
3 Preparing the cutouts. All inner corners require a minimum radius of 3 mm.

We recommend radiuses of more than 3 mm when the kitchen design allows as it will make the countertop firmer.

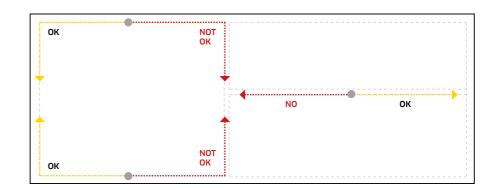
Remember that the perimeter cut of the slab to release stress may be used as a final cut for the part to be made.

Lower pressure is recommended for drilling holes.

To do the cutouts, beginning the cut at an internal point in the cutout and then getting closer to the cut perimeter is recommended:



To do large cutouts or large parts, you must remember the following cutting sequence:



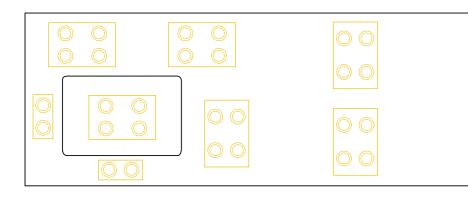
First cutting towards the edge of the slab from the hole or in parallel to the edge of the slab and following this direction to finish the part is recommended. Making the first cut towards the center of the slab is not recommended.

5.3 Digital control bit

Before beginning:

Check that the bench is straight and level and that the suction cups are free of any debris. Check that there is enough support for the slab.

Make sure there are suction cups below the entire slab, especially below the part to be cut.



Use plenty of water to cool the tool during production in the inside and outside of the tool.

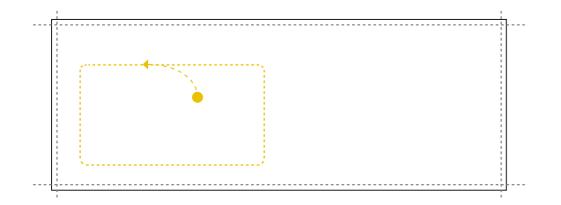
STEPS:

1. Perimeter cut, minimum 2 cm. (only for 12 mm and 20 mm)

2. Drilling with a crown bit.

3. Preparing the cutouts. All inner corners require a minimum bit of 3 mm.

We recommend bits larger than 3 mm when the kitchen design allows, as it will make the countertop firmer



First drill a hole inside the cutout, using the crown bit. Afterwards, use the router bit to get closer to the cutting line.

As you get closer to the cutting line, curve a bit; do not use a perpendicular approach as this could create a notch.

At the end of the cut, reduce the speed to 50% as you complete the cutout.

Tips for digital control bits.

Crown bit:

Drill the slab with the lowest downward speed possible, especially at the end of drilling. Before completing the drilling, raise the crown a bit to remove the pressure from the inside of the crown.

Router bit:

Always begin from a hole previously made with a crown bit.

Never lower the router bit directly onto the surface.

The first two times, eliminate only 0.5 mm; then 2 mm per pass.

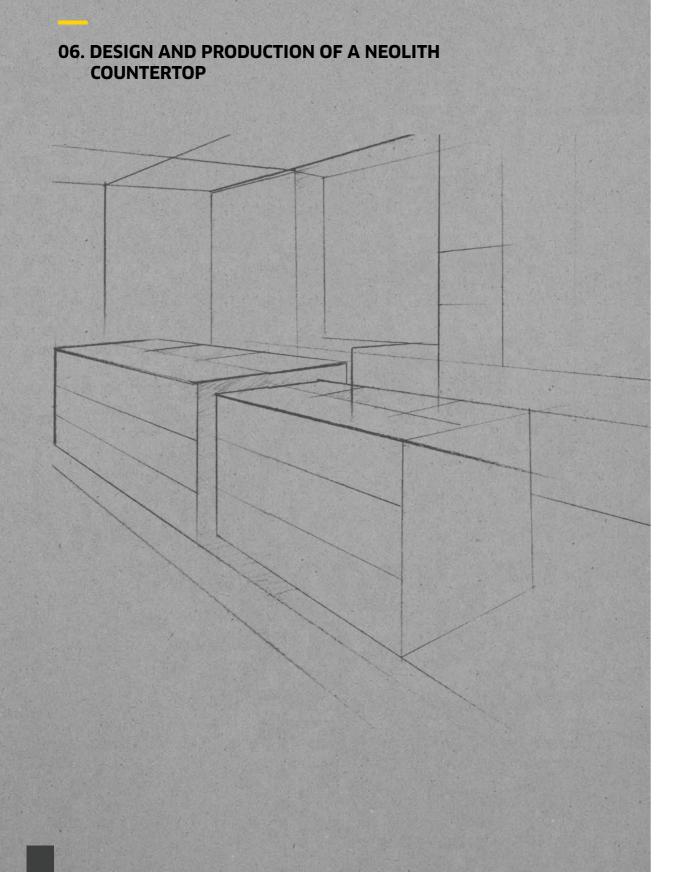
Removing more than 6 mm on a 12 mm slab or 10 mm on a 20 mm slab is not recommended.

Cutting bit:

Do not use the oscillation option during cutting; this could cause splintering.

The clearest models (Arctic White, Estatuario, Calacatta) are harder for tools given the specific raw materials used;

TheSize recommends lowering cutting speeds for these models to prevent tool overheating.



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TECHN

Neolith

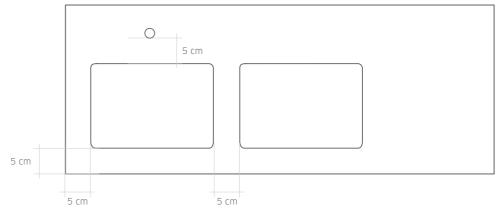
TheSize Surfaces recommends the following end uses for the various Neolith thicknesses:

Paneling: 3mm, 3+, 6 mm and 6+ Paving: 6 mm, 6+, 12 mm and 20 mm Countertops: 3+3, 6+3, 6+6, 12 and 20 mm.

6.1 Gaps

The minimum distance between a cutout and the edge of the slab must be at least 5 cm.

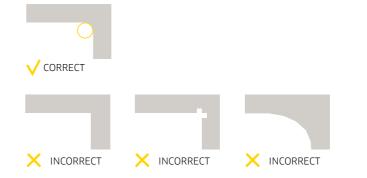
TheSize recommends distances greater than 5 cm when the kitchen design allows as it makes the countertop firmer.



IMPORTANT



We recommend radiuses of more than 3 mm when the kitchen design allows as it will make the countertop firmer.



The correct way to create a cutout, except with waterjet and digital control bits, is to first drill the corners and then the rest of the cuts.

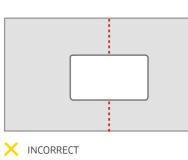
Guidelines for cutouts:

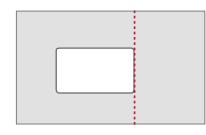
- Two straight cuts must never be joined.
 No squared inner corners.
- All inner corners must have a minimum radius of 3 mm.

If the countertop design so allows, avoid Neolith countertops with unbalanced weights:

✓ CORRECT



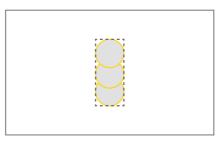




X INCORRECT

Sockets and switches:

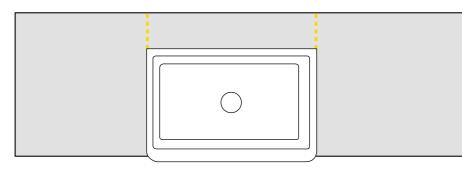
Gaps made to insert accessories (sockets, switches, etc.) should be done using circular drills; they may overlap.



V CORRECT

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Irregular cuts are also not recommended such as for a "farmhouse sink"; in these cases, add joints to the countertop design:



V CORRECT

X INCORRECT

6.2 Countertop reinforcement

Countertops with 45° edges:

Reinforcements for 45° edges must be made with Neolith strips or dense granite; be careful when using other materials for reinforcement. The difference in the thermal expansion can cause the countertop to curve or the 45° edges may open over time.

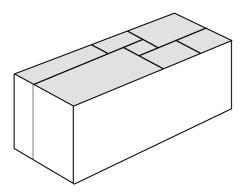
NEVER USE QUARTZ REINFORCEMENT.

For countertops with 45° edges, reinforcements must be installed for greater countertop firmness, especially with 3+3, 6+3 and 6+6 thicknesses. These reinforcements must be distributed around the perimeter in such way that they find direct support on the sides of the kitchen furniture.

Moreover, it is important to reinforce the perimeter of the cutouts for greater strength and firmness in the area:

Countertops with a straight edge:

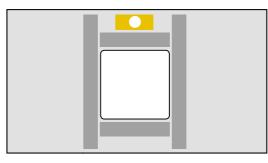
For straight edge countertops, where no inner structure can be hidden, a continuous surface like a wooden plank, Kerdi-Board or similar element should be placed over kitchen furniture.



3+3, 6+3 and 6+6 Neolith countertops

Besides the aforementioned written recommendations, inserting a reinforcement piece (wood or similar) in the faucet gaps is recommended to reinforce this area. This reinforcement will distribute the forces generated during installation and daily use.

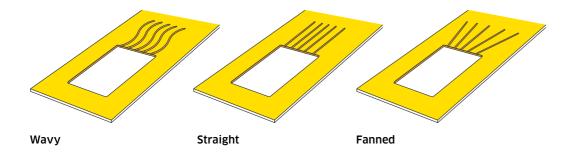




6.3 Draining racks

With a Neolith countertop, the only solution is creating sloped channels and combining them with an undermount sink.

The grooves can be made in the size and shape that best adapts to the kitchen design. For example:



The following considerations must be observed when making the channels:

- This part of the countertop will require additional cross-reinforcement.
- The maximum depth of the channels is 3 mm for 12 mm thicknesses and 5 mm for 20 mm thicknesses.
- Sloped channels are not recommended for 3+3 and 5+3 mm countertops.
- The minimum distance between channels should be 1 cm.
- NANOTOP by LITHOFIN or a similar product should be used to seal the grooves.

Please remember that the base color of the slab will be visible upon creating the grooves and it may contrast with the surface design in some models. Depending on the model, the grooves may change color and be void of the design.

Manufacturing

Recess

Use a router bit and always begin at the sink gap. Never lower the router bit directly onto the surface.

The first two times, eliminate only 0.5 mm; then a maximum of 2 mm per pass.

Finish

Sand the grooves by hand to remove any marks made by the router bit. Use fine sandpaper until all marks have been removed.

Round the upper edges of the grooves and seal using NANOTOP by LITHOFIN or a similar product.

6.4 Sinks

Flush sinks

TheSize only recommends the installation of flush sinks in 12 mm and 20 mm.

Removing more than 6 mm on a 12 mm slab or 10 mm on a 20 mm slab is not recommended.



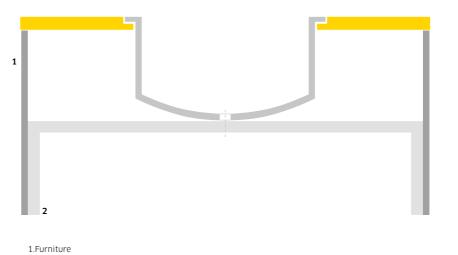
Undermount sinks

2. Support rod

To reduce the risk of splintering to a minimum, a round edge with a radius of at least 2 mm is recommended.



For large-size sinks, place a rod support structure under the sink so the weight is on the rods and not the countertop.



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MANUAI

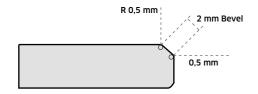
TECHNICAL

Neolith

6.5 Edges and Joints

Edges

TheSize recommends using the following edge for Neolith countertops. It is the perfect compromise between esthetics and functionality.



The edge is formed by a 2 mm bevel and by two rounded edges with a radius of 0.5 mm. The radius is barely visible but increases the edge impact resistance.

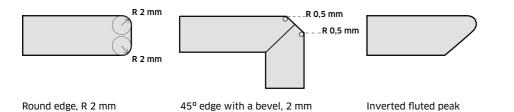
In high impact risk areas (sinks and dishwashers, for example), the edges could be as follows:



The greater the radius, the better it will bear any impacts. Remember that the greater the bevel, the more base color in the slab.

The edges can be wet or dry polished using standard granite or marble discs.

Recommended edges for Neolith:



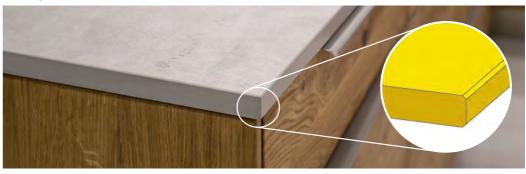


Polished edges must be treated with water repellant to permanently seal the edge.

TheSize recommends using NANOTOP by LITHOFIN or a similar product.



45° edge with a bevel 12 or 20 mm



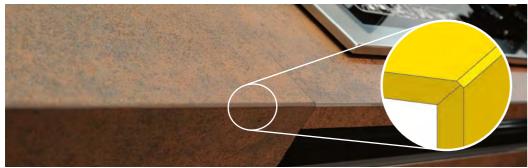
Round polished edge



Inverted fluted peak



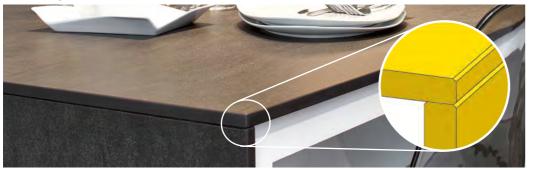
Straight iglete edge



Pilaster edge



A testa **edge**



Joints

Given the texture of Neolith slabs, a micro-bevel for all joints is recommended. Even if the straight edges are perfect, they may seem "splintered" due to the texture of Neolith slabs.

Each joint requires additional support (any technique will work).

The oven finish may not be "touched-up"; once the Neolith surface is polished or ground, there is no way back.

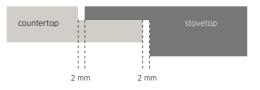
Producing samples so your customer can approve the edges and joints is highly recommended. (joint with a micro-bevel, 45° edge with a 2 mm bevel or a round 2 mm edge).

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6.6 Glass-ceramic / induction stovetops

The minimum distance between the countertop and a stovetop must be 2 mm.



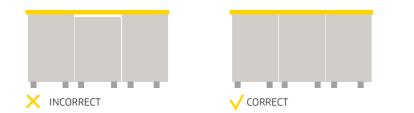
Use the right heat-resistant silicone or the joints supplied by the stovetop manufacturer.

Removing more than 6 mm on a 12 mm slab or 10 mm on a 20 mm slab is not recommended.

6.7 Countertop Installation

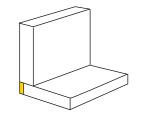
Furniture:

Furniture must be in perfect conditions and level before installing the countertop. Cabinets must be secured to each other and then secured to the wall.



Expansion joints:

Given the irregularities in the wall and possible structural movements in the building, leaving a 3 mm perimeter expansion joint on the countertop is recommended. The point where the crown and countertop meet shall be sealed with a line of silicone:

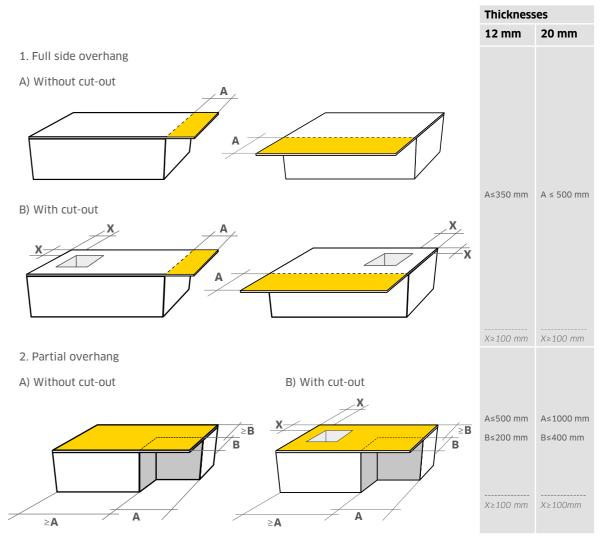


Flexible adhesive should be used such as 100% transparent adhesive to fill these joints and secure the countertops to the furniture and the floor or to secure the Neolith crowns to the wall. This will enable adequate thermal expansion.

Using flexible adhesives such as epoxy or liquid nails to secure the countertop is not recommended.

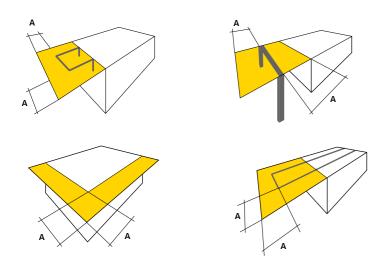
6.8 Overhang

Sizing the parts that will overhang must be taken into consideration during countertop designing, pursuant to the parameters indicated in the following table:



Occasional maximum static load = 100kg It is recommendable to reinforce the ${\bf X}$ sections with additional reinforcements of expanded polyurethane.

More examples of countertops with overhangs



6.9 Outdoor countertops

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Installing the countertop over a brick/stone or similar base or structure using C2 cement glue is recommended.

If there is no such structure available, covering the top of the existing structure with reinforced cement panels is recommended.

When installing outside, avoid the use of wood or agglomerate planks due to their tendency to expand and contract as the weather changes.

Using flexible adhesives such as epoxy, liquid nails or construction adhesives to secure a Neolith countertop is not recommended.

To glue the 45° angles, use an adhesive that is suitable for outdoor use and resistant to UV rays such as Integra Ultra.

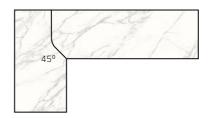
1 1 Neolith Slab. 2 2 2 3 5 3 4 5 3 4 5 3 5 8 8 6 9 9 7 9 8 8 9

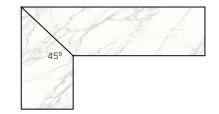
5 mm space minimum

6.10 Observations

L-shaped countertops

Dividing L-shaped countertops into several parts is recommended to avoid 90° corners in one part.





L-shaped countertops made of a single piece without a 45° angle must have a minimum radius of 2".



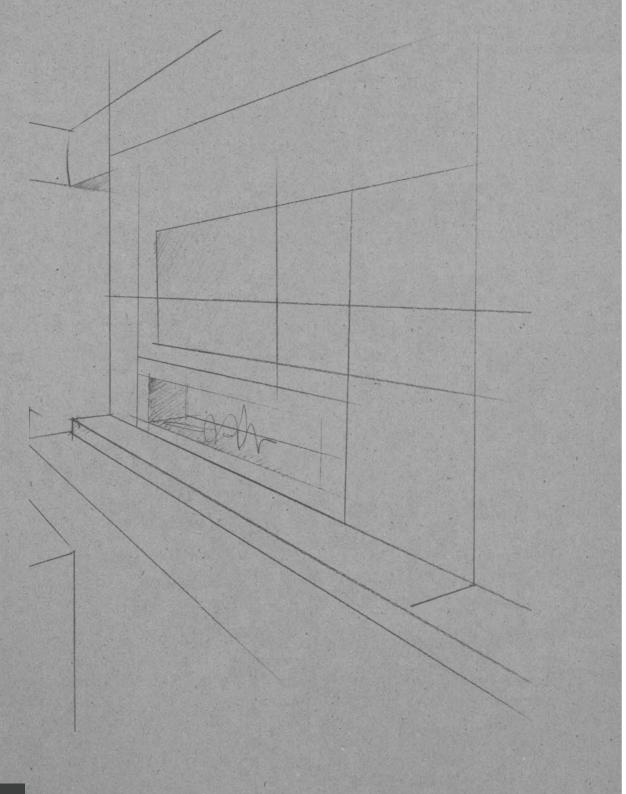
Make sure the furniture is in perfect conditions and level before installing this type of countertop.



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TECT

Neolith



07. EXTREME HEAT

Neolith parameters that are essentially relevant for this use:

- Maximum temperature: 300° C
- Linear thermal expansion: between 5.3° and 6.7°. 10-6 x°C-1

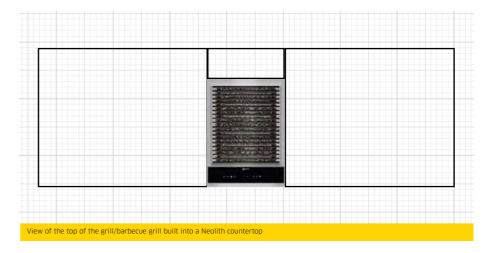
If grills and/or barbecue grills are to be placed in a Neolith countertop, keep the following in mind:

 \cdot Always remember that all material expands when subject to temperature changes (i.e. the metal structure of a barbecue grill) to prevent stress due to a lack of space for such expansion.

• Metal materials expand much more than Neolith; therefore, prevent direct contact by leaving enough space (which will depend on the dimensions of the barbecue grill, maximum temperature it may reach, etc.).

 \cdot Polishing the edges of the cutout is recommended to eliminate any micro-fissures created when cutting. The more intense this treatment is, the less risk there will be in the future.

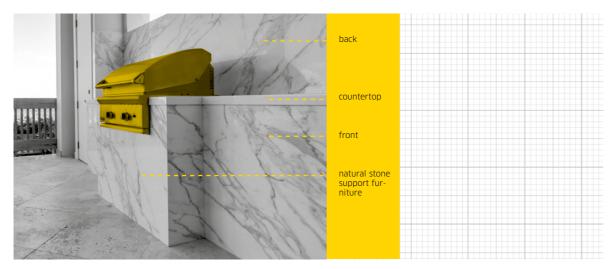
 \cdot Inner corners must have minimum radiuses of 10 mm. We recommend diameters of more than 10 mm or producing the countertop in several parts, when the design so allows:



 \cdot Leaving a minimum space of 5 mm between the grill/barbecue grill and filling with thermal insulation such as fiberglass thermal insulation tape is recommended.



Possible uses for Neolith with built-in barbecue grills:



Possible uses for Neolith with fireplaces:

Front outer paneling: separated from the heat by an inner refractory wall (fire resistant).

Side outer paneling: separated from the heat by an inner refractory wall.

Countertop furniture





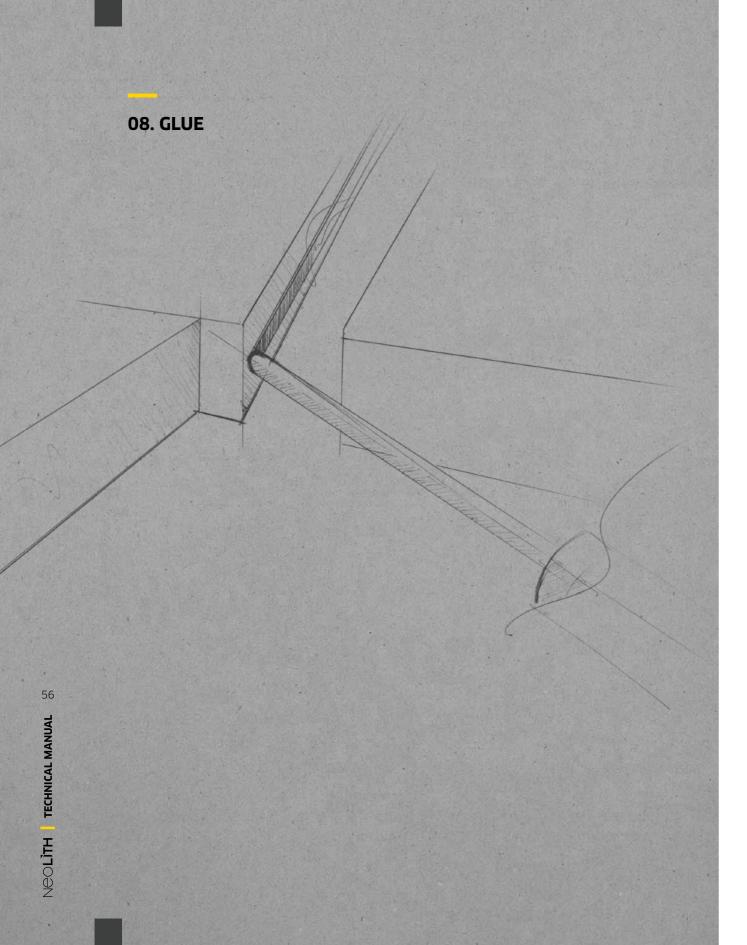


Ethanol fireplace design

Front outer paneling: separated from the heat by an inner refractory wall. Side outer paneling: separated from the heat by an inner refractory wall.







08. GLUE

Look at the side of the Neolith slab when preparing the glue color as the color of the surface is not exactly the same as the color of the slab base; this is important as polishing the edges will expose the slab base color.

Recommended glue: Integra or similar.

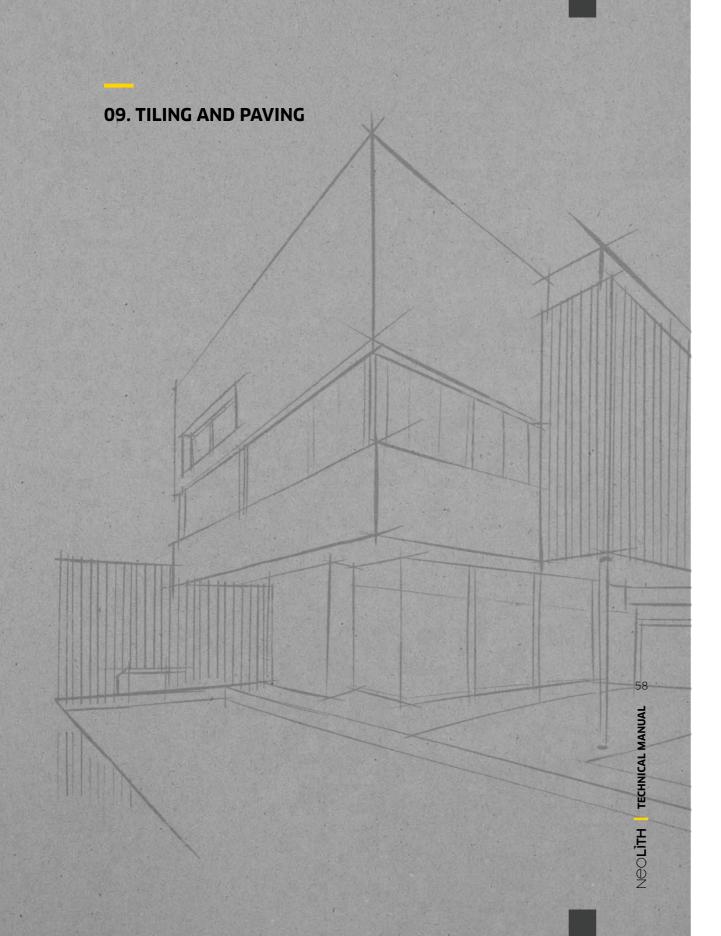
INTEGRA COLOR CATALOG:

| Sheet name | Integra Match |
|----------------|-----------------------|
| Arctic White | Perfect - 720-314 |
| Arena | Marfil - 720-310 |
| Aspen Grey | Quarry - 720-423 |
| Avorio | Marfil - 720-310 |
| Barro | Meteor Grey - 720-311 |
| Basalt Beige | Barley - 720-307 |
| Basalt Black | Nacreto - 720-312 |
| Basalt Grey | Meteor Grey - 720-311 |
| Belgian Blue | Nacreto - 720-312 |
| Beton | Light Grey - 720-310 |
| Calacatta | Perfect - 720-314 |
| Cement | Cement - 720-313 |
| Concrete Taupe | Diana Pearl - 720-424 |
| Estatuario | Perfect - 720-314 |
| Iron Copper | Nacreto 720-312 |
| Iron Corten | Nacreto 720-312 |
| Iron Grey | Nacreto 720-312 |
| Iron Moss | Nacreto - 720-312 |
| Limestone Lava | Cement - 720-313 |
| Marfil | Marfil - 720-310 |
| Nero | Nacreto - 720-312 |
| Nero Assoluto | Nacreto - 720-312 |
| Nero Marquina | River Rock - 720-425 |
| Nero Zimbabwe | Iron Grey - 720-426 |
| Nieve | Perfect - 720-314 |
| Onyx | Perfect - 720-314 |
| Phedra | Light Grey - 720-309 |
| Pietra Di Luna | Silk Grey - 720-316 |
| Pietra Di Osso | Barley - 720-307 |

| Sheet name | Integra Match |
|---------------------|-----------------------|
| Pietra Di Piombo | Medium - 720-315 |
| Pulpis | Clay Brown - 720-308 |
| Strata Argentum | White Linen - 720-427 |
| Textil Black | Cement - 720-313 |
| Timber Ash | Cement - 720-313 |
| Timber Ice | Perfect - 720-314 |
| Timber Night | Meteor Grey - 720-311 |
| Timber Oak | Cement - 720-313 |
| Travertino Classico | Marfil - 720-310 |
| Travertino Navona | Marfil - 720-310 |
| Zaha Stone | Dove - 720-422 |

AKEMI GLUE CATALOG:

| | Akemi Colour Bond P+ 6 min | | |
|-----------------------------|----------------------------|--|--|
| Akemi Colour Bond P+ 12 min | | | |
| | Akemi Platinum P+ | | |
| | Akemi Spectrum Paste | | |



09. TILING AND PAVING

9.1 Indoor installation.

Leave a 2-3 mm space between tiles.

Create movement joints every 25 m2 or as dictated by applicable national law. The adhesive must be applied with a notched trowel using the double-glue technique; in other words, the adhesive must be applied to the back of the tile and the sublayer.

Neolith must be installed with **class C2** adhesive pursuant to standard EN 12004 and class **"highly flexible S2"**.

9.2 Outdoor installation.

Create flexible movement joints of around 1 cm wide in the corners. Create movement joints every 9-12 m2 or as dictated by applicable national law. The building structural joints must be absolutely respected.

The tiles must be installed with a large joint between them. The width of the joint must be determined pursuant to the local climate conditions, the size of the tiles and flexibility of the sublayer.

In warm climates and during poor weather (strong winds, for example), using class E adhesives (with open time) is recommended pursuant to standard EN 12004.

In cold climates and during the winter, it is best to use class F adhesives (quick fixing) as per EN 12004.

9.3 Tiling over other Tiles.

Check that the old tiling is well-fixed. Otherwise, remove any loose tiles and fill the gaps with mortar that is compatible with the support.

Wash the old tiling with water and soap to eliminate any grease or dust, rinse well and let dry.

Apply bonding resin before tiling above the old tiles, following the recommendations for installation indoors or outdoors.

9.4 Manual Cutting

Manual ceramic cutter:

Neolith can be cut without any problems using traditional machines. Thicknesses of 3 and 6 mm can be cut using manual cutters. Cutting with a grinder is recommended for 12 mm. If the part has reinforcement mesh, the mesh must be cut with a cutter after splitting.

Grinder:

Tiles may be cut with no problems using a diamond disc available from TheSize.

Irregular cut:

Use crown bits, available from TheSize, for round holes. Gaps made to insert accessories (sockets, switches, etc.) should be done using circular drills; they may overlap.

A radius of at least 3 mm must be left on any inner corner of a gap. Never leave a 90 degree angle.

9.5 Tile Rejointing

Recommended Products:

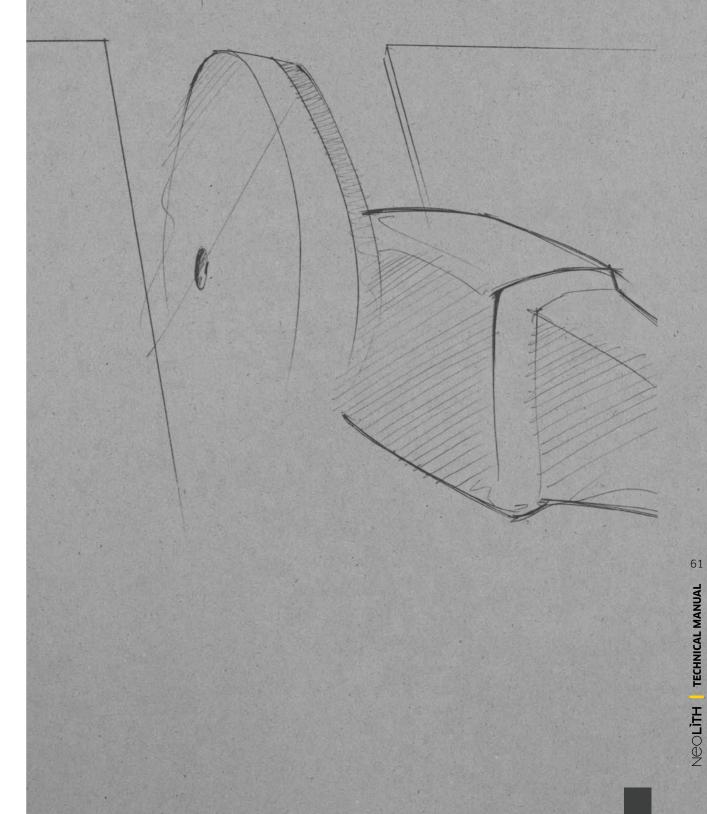
High-performance, anti-fluorescence, quick fix and dry, water-repellant, anti-mold, class CG2 as per EN 13888.

High-performance, polymer modified, water-resistant technology for filling joints of up to 6 mm wide, class CG2 as per EN 13888.

Deep clean the surface after re-jointing with the right soap, wash the surface and absorb any excess water using the right equipment and do any other necessary operations to complete the work as per the specifications.

For more information, read our "Tiling and Paving Guide", available in the download area on our website: www.neolith.com.

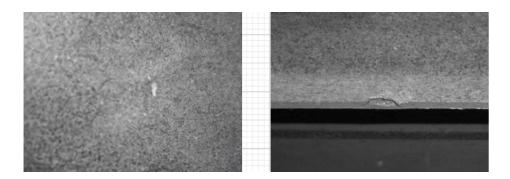
10. REPAIRS



10. REPAIRS

10.1 Chip repair

Ceramic surfaces can be damaged for many reasons. Most of the time it is due to a defect caused by a plate that falls down or a heavy object.



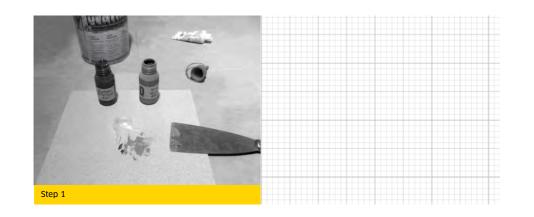
Keep in mind that no repair is perfect; it's very difficult to duplicate the tone and texture of a surface with resins.

Step 1:

Mix the bi-component epoxy resin, adding the color to color the epoxy so it matches the Neolith countertop.

Tip:

Repair all defects at the same time as the bi-component epoxy will cure quickly. And only mix enough to fill the defects with a little left over: epoxy resin cannot be stored once mixed.



NEOLÌTH | TECHNICAL MANUAL 5

Step 2: Use a Neolith fragment to imitate the surface finish and fill the defect with the mixed resin.



Step 3:

Use an acetone-soaked cloth to add additional texture to the resin to imitate the adjacent surface even better.

Make sure the level of resin does not exceed the surface.

Clean the excess resin from the surface before it hardens with an acetone-soaked cloth.

Step 4:

Once the resin hardens, remove the excess resin in the edge mechanically. For surface repairs, it's best to work manually to prevent damage to the surface.



10.2 Repairing surface scratches in Neolith Polished.

- Necessary materials:
- Cerium oxide powder (90% purity, optical quality)
- Rubber gloves
- Smooth cloth
- Water
- Electric drill / Grinder
- Polishing pad (lamb wool, felt or leather pads)
- Spray bottle
- Goggles

Determine the depth of the scratches before polishing the scratches on the surface. If you can feel the scratches with your fingernail, they're too deep to be polished with cerium oxide. You must first sand the entire surface.

Only then can you polish the surface with cerium oxide.

Instructions:

1. Mix a little cerium oxide with the water to form a fine paste (creamy consistency) - mixing in a small bowl is recommended so the paste can be applied easily to the polishing pad.

2. Deep clean the surface to eliminate all dirt and grease residue.

3. Apply the polishing paste to the pad.

- 4. Place the pad on the drill and work the area.
- 5. Move the pad up and down, left and right in the area.

6. Keep the surface damp to prevent overheating - if there's enough paste, just spray a little water on to keep the area damp.

7. Clean any residue and inspect the repair - keep working until you get a satisfactory result.

8. Clean the pad for later use.

11. PROTECTIVE EDGES & PROFILES

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TECH

Neolith

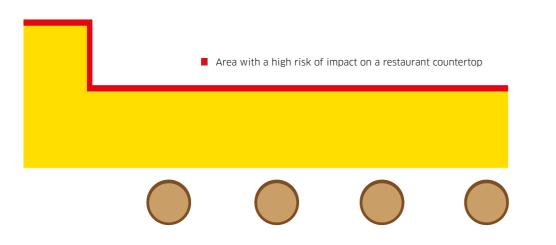
11. COUNTERTOP EDGES

EDGES & PROTECTION PROFILES

11.1 Work Areas subject to Harsh Conditions

Even though a **Neolith**[®] countertop is resistant to impacts, there are harsh work atmospheres in which the edges recommended in section 6.5 of our **countertop technical manual** are not enough to properly protect the countertop in these environments.

In these areas with a **high risk of impact**, behind a restaurant bar counter, for example, rounded edges should be considered for the countertop.



Due to the design of some models, this option may not be the most aesthetic measure.

To solve this problem, **TheSize** sought the assistance of **Schlüter®-Systems**, whose construction systems are the result of extensive experience in the sector and guarantee a good final finish.

Schlüter*-Systems produces several profiles that are suitable for protecting Neolith*countertop edges.

Below is a summary of some profiles that have led to the best results with the various ${\bf Neolith}^{\ast}$ models and thicknesses.

The profiles can be secured to the countertop with industrial silicone like **SoudalT-Rex**. The joint between the profile and the **Neolith**[®] countertop was rejointed with **Akemi Composil** colored silicones.

- Profiles combined with a substrate like Schlüter®-Kerdi-Board or similar.
- Sometimes, substrates like Schlüter®-Kerdi-Board are used. Schlüter®-Kerdi-Board is an extruded rigid foam panel covered on both sides with special reinforcement material to guarantee the effectiveness of the adhesive. Schlüter®-Systems has developed various types of profiles to cover the visible edge of the substrate.

Schlüter[®]-Rondec-Step

Schlüter®-Rondec-Step is a profile which, in combination with a Neolith countertop, creates a symmetrical outer corner and covers the front edge of the countertop. The profile comes in two aluminum finishes and allows for different decorative designs and interesting contrasts.



Kerdi-Board

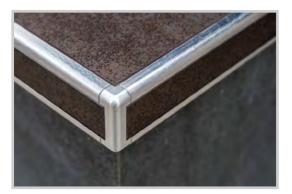
1. Neolith Beton 12 mm with Schlüter*-Rondec-Step and its outer angle

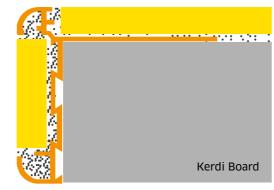
Cross-sectional image of a Schlüter*-Rondec-Step profile

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Schlüter[®]-Rondec-Stepct

With Schlüter®-Rondec-Stepct, pieces with the same coating as the countertop as well as other materials can be inserted in the free space in the profile. Besides the decorative effect, the profile effectively protects the countertop edges from deterioration caused by mechanical aggressions. Special parts are available for Schlüter®-Rondec-Stepct to properly join the profiles to inner and outer corners.





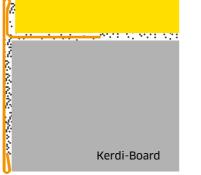
- 2. Neolith Iron Copper 12 mm with Schlüter*-Rondec-Stepct and its outer angle
- Cross-sectional image of a Schlüter*-Rondec-Step profile

The suitability of Schlüter-Rondec-Stepct should be checked in cases where chemical aggressions may occur. Aluminum is sensitive to alkaline substances.

Schlüter[®]-Schiene-Step

Schlüter*-Schiene-Step is the right profile for Neolith* countertops. The top of the profile features a vertical section that finishes and protects the countertop edges from possible impacts while the bottom covers the edge of the substrate.





- 3. Neolith Zaha Stone 12 mm with Schlüter*-Schiene-Step and its outer angle
- Cross-sectional image of a Schlüter*-Schiene-Step profile

Profiles to protect edges

Schlüter[®]-Quadec

Schlüter*-Quadec is a high-quality finish stainless steel profile for countertops, which also provides good protection for edges. The surface of the profile creates a square outer corner that is symmetrical with Neolith[®] countertops.





Cross-sectional image of a Schlüter*-Quadec-TSG profile

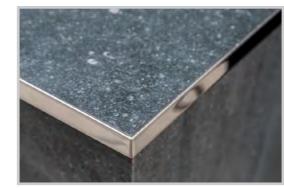
4. Neolith Cement 12 mm with Schlüter*-Quadec-TSG and its outer angle

Special parts as well as connections and covers for some finishes are available to easily and beautifully join Schlüter[®]-Quadec profiles to inner and outer corners

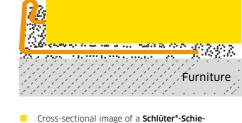
Schlüter[®]-Schiene

Schlüter*-Schiene is a special profile to protect and decorate the outer edges of Neolith* countertops.

The acting loads are deviated to the coating and support because of the thickness and special angle of the profile. Thus, the countertop edges are effectively protected from possible deterioration. A separator creates a defined joint between the profile and countertop.



5. Neolith Pierre Bleue 20 mm with Schlüter*-Schiene-E



ne-E profile

Schlüter[®]-Jolly

Schlüter*-Jolly is a finishing profile for **Neolith***countertop edges which also provides good edge protection. Since the profiles are available in different colors, the countertop and joint colors can be combined in addition to the possibility of creating interesting contrasts.





Cross-sectional image of a Jolly- AC profile



9. Neolith Iron Copper 12 mm with Quadec-TSOB

10. Neolith Nero Zimbabwe 12 mm with Jolly-AC

6. Neolith Estatuario 12 mm with Jolly-AC

Besides the decorative effect, the profiles also protect the countertop edges from deterioration due to mechanical aggressions.

The separator integrated in the profile creates an even joint between the profile and countertop.

Other models



7. Neolith Pietra di Piombo 12 mm with **Jolly-TSG**

8. Neolith Pierre Bleue 20 mm with Schiene-A

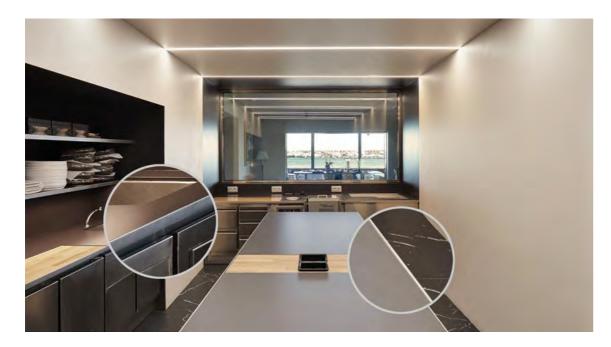
> Composil - Akemi colored silicones

| Photo no. | Neolith [®] color | Schlüter [®] -Systems profile | AKEMI silicone (Composil) |
|--------------|-------------------------------|--|------------------------------|
| 1 | Beton Silk | Schlüter®-Rondec Step Brushed Aluminum | CC 1960 |
| 2 | Iron Copper | Schlüter®-Rondec-Step-CT Brushed Aluminum | CC 2000 |
| 3 | Zaha Stone Silk | Schlüter®-Schiene-Step-Eb Brushed Stainless Steel | CC 1840 |
| 4 | Cement Satin | Schlüter®-Quadec-Tsg Lacquered with Gray Relief | CC 1805 |
| 5 | Pierre Bleue | Schlüter®-Schiene-E Stainless Steel | CC 1880 |
| 6 | Estatuario Polished | Schlüter®-Jolly-Ac Lacquered White | CC 1130 |
| 7 | Pietra di Piombo Silk | Schlüter®-Jolly-Tsg Lacquered with Gray Relief | CC 1850 |
| 8 | Pierre Bleue | Schlüter®-Schiene-A Stainless Steel | CC 1880 |
| 9 | Iron Copper | Schlüter®-Quadec-Tsob Lacquered with Bronze Relief | CC 2000 |
| 10 | Nero Zimbabwe | Schlüter®-Jolly-Ac Lacquered Black | CC 1000 |

NOOLÌTH | TECHNICAL MANUAL 12

Proyectos con perfiles

Restaurant Miramar - Llançà, Girona, España





Restaurant Enigma - Barcelona, España

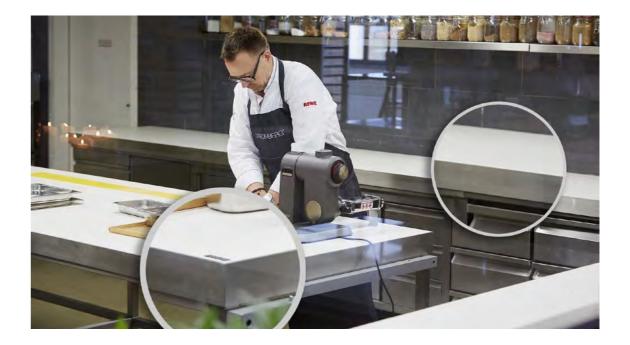








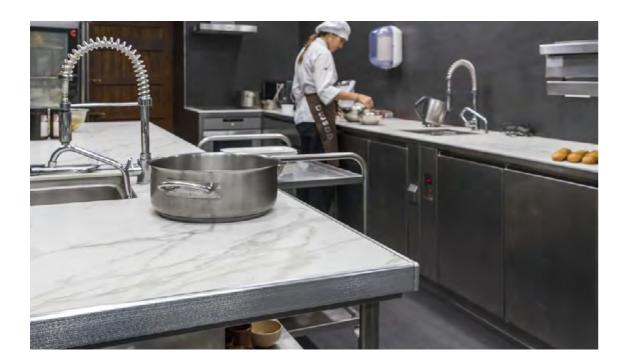
Restaurant Kutchiin & Campus Loft - Münster, Alemania

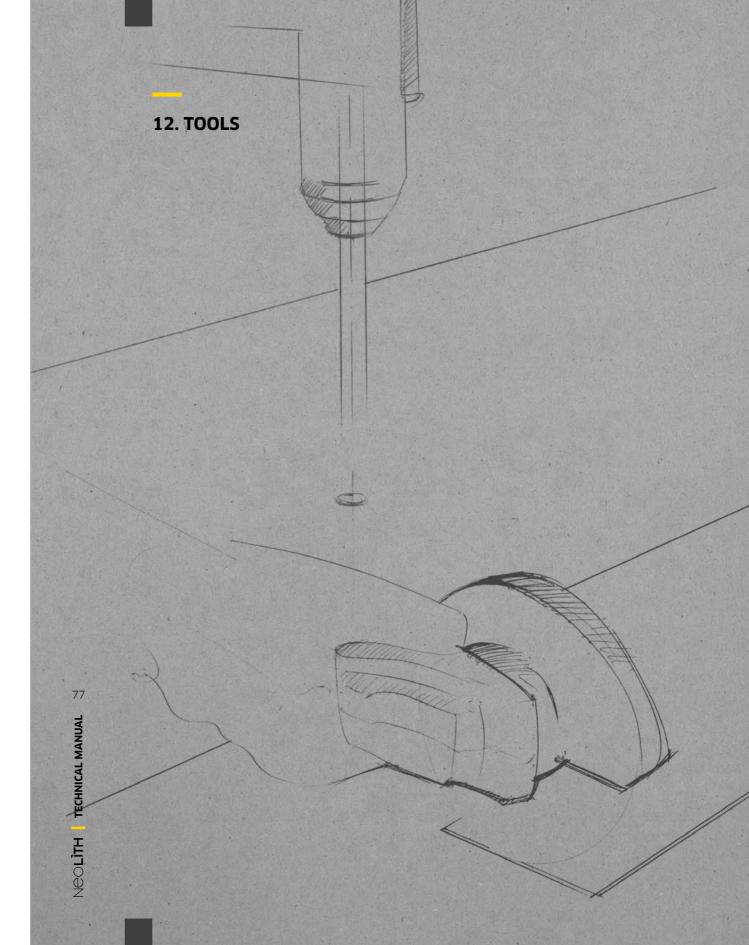






Gasma, Gastronomic University - Castellón, España





12. TOOLS

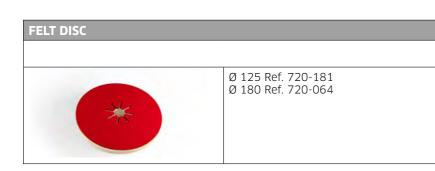
DISCS Dented disc for porcelain Ø 300 Ref. 411-053 Ø 350 Ref. 411-055 Ø 400 Ref. 411-056

SILICON CARBIDE DISC

A flexible silicon carbide disc with Velcro for dry work. 60, 120, 220, 400 Grain

| Ø 125 Ø 180 60: 720-041 60: 720-018 120: 720-042 120: 720-019 220: 720-043 220: 720-020 |
|--|
| 400: 720-044 320: 720-021 400: 720-023 600: 720-022 |

| SMOOTHING PLATE WITH ELECTRO-DEPOSITED DIAMOND | | |
|--|---|--|
| To refine and smooth edges | | |
| | Fine grain G40, Ref.720-008 Thick grain G100, Ref. 720-009 | |



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SMOOTHING CUP

Preliminary edge beveling and polishing



medium, 60 grain: Ref. 720-061



| 20-35 MM CROWN BITS | |
|--------------------------------|---------------|
| Electro-deposited diamond bits | |
| | Ø 35: 411-018 |



6-12 MM BITS

Electro-deposited diamond bit. Use a drill without the hammer action. Use water to cool.



| Ø 6 Ref. 853-099 Ø 8 Ref. 853-098 Ø 10 Ref. 853-097 |
|---|
| |
| |

CROWN BIT (CNC)



| 10 CM DIAMOND DISC | | |
|-------------------------------------|------------------------|--|
| Dented disc for porcelain. Recommen | ded speed 11.00 R.P.M. | |
| | Ref. 411-051 | |



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NOOLÌTH | TECHNICAL MANUAL

| ER BIT | | |
|--------|--------------|--|
| | | |
| | Ref. 720-210 | |

NEOLITH COLORED FILLER Check availability and references.



ULTRA-COMPACT DISC Segmented disc for porcelain



MANUAL TILE CUTTER



Sales Contact: Brevetti Montolit SpA

Company headquarters: Largo Cav. Montoli - 21050 Cantello (VA) Italy Via Varese, 4/A - 21050 Cantello (VA) Italy

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Reference: 300-70 (SUPERSTICK) Machinery: Manual tile cutter. Features, Diameters, Observations:

- A complete system for cutting porcelain stoneware tiles and slabs from 0 to 340 (o" to 134") cm
- Non-slip system;
- Quick connection;
- Integrated lubrication;
- Quick cutting wheel change;
- International patent;
 100% MADE IN ITALY



ELECTRICAL TILE CUTTER



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Reference: MOTO-300-FL (MOTO-FLASH-LINE) Machinery: Electrical Tile Cutter Features, Diameters, Observations:

- Motorized dry cutting system for slabs and porcelain tiles, granite marble from 0 to 340 cm (134").
- This is the motor-powered evolution of the Flash Line manual cutting system. With this system you can cut porcelain tile and slabs up to 20mm (approximately ¾ inch) thick. The machine itself has all the advantages of manual flash line (easy to transport, light, precision, patented locking system without the use of suction cups), with the addition of a motorized head with a professional diamond blade for ceramic and porcelain tile. In short, it is a system for dry cutting porcelain slabs up to 20 mm (approximately 3/4 inch) thick.



HANDLING SYSTEM FOR LARGE FORMAT TILES





Company headquarters: Largo Cav. Montoli - 21050 Cantello (VA) Italy Via Varese, 4/A - 21050 Cantello (VA) Italy

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Reference: 300-70 (SUPERSTICK) Machinery: Handling System for Large Format Tiles

Features, Diameters, Observations:

- It is designed to handle and position nextgeneration large format (320x160 cm) (128"x64") porcelain stoneware slabs.
- The overall dimensions of the complete frame are also specifically designed so the tile slabs can be removed from the special packaging they come in.
- The telescopic handles provide for a more ergonomic grip.
- The 'Superstick' carrying frame allows the tile slabs to move in both horizontal and vertical directions and is equipped with telescopic legs for support on the ground so the tile remains in the frame without being damaged.
- The special suction cups are equipped with a vacuum safety gauge to indicate the force of adhesion to the tile slab.
- Made of galvanized steel to resist wear and corrosion.
- Max. load 80 Kg (160 pounds)



PLASTIC CORNER PROTECTOR FOR SINTERED STONE SLABS



Brevetti Montolit SpA

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Reference: 300-95-04 (3/4mm) 300-95-06 (5/6mm) 300-95-10 (8/10mm) 300-95-12 (11/12mm)

Machinery: Plastic corner protector for Sintered Stone slabs

Features, Diameters, Observations:

- A set of large plastic tiles for Sintered Stone slabs and ceramic tiles.
- A patented system that absorbs shocks which could damage or chip the material.
 Made of plastic material that can be re-used
 - Made of plastic material that can be re-used again and again.









BOGIE FOR LARGE TILES



Brevetti Montolit SpA

Company headquarters: Largo Cav. Montoli - 21050 Cantello (VA) Italy Via Varese, 4/A - 21050 Cantello (VA) Italy

Legal head office: Via Turconi, 25 - 21050 Cantello (VA) Italy Tel. +1 604 353 99 64 Tel. +39 0332 419 206 Tel. +39 0332 419 230 e-mail: export@montolit.com web: www.montolit.com

Reference: 300-85 (GOAL)

Machinery: Bogie for Large Tiles. Features, Diameters, Observations:

- The ideal solution for moving large slabs of porcelain stoneware in warehouses or at installation sites.
- Easily folds to use less space during transport and storage.
- The 4 soft rubber castors on each corner offer superb movement and direction control as well as extreme stability.
- Two of the wheels have brakes which can be locked to keep the carriage in the desired position.
- Slabs up to a maximum weight of 150 kg (300 pounds) can be carried completely safely and materials such as wood and foam can be secured to avoid chipping and slipping in areas of contact with the cart.
- Two hooks in the upper part of the cart support the Superstick frame to more easily coat tiles with adhesive glue and create movement continuity between the plate lifting phase and installation.



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DIAMOND BLADE



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Reference: CGX115 (4.5") (FRECCIA ORO)

Machinery: Diamond blade Features, Diameters, Observations:

- Use: dry and wet
- Height band diamond: 11 mm
- Material: porcelain stoneware, hard stone
- Application: laying tiles
- Performance
- Speed: Very high
- Finish: Very high
- Life span: Very high
- Use: angle/flexible grinder
- Renewable blades with abrasive stone art. 395B.



DIAMOND CORE-BITS FOR DRY DRILLING



Sales Contact: Brevetti Montolit SpA

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Legal head office: Via Turconi, 25 - 21050 Cantello (VA) Italy Tel. +1 604 353 99 64 Tel. +39 0332 419 206 Tel. +39 0332 419 230 e-mail: export@montolit.com web: www.montolit.com



Reference: FS (MONDRILLO)

.

:

Machinery: Diamond Core-Bits for dry drilling Features, Diameters, Observations:

Use: dry and wet Diameter: 6-8-10-12-14-16-18-20-25-27-30-35-40-45-50-55-60-65-68-70-75-100-120 mm (1/4", 5/16", 3/8", ½", 9/16", 5/8", 11/16", ¾", 1", 1-1/16", 1-3/16", 1-3/8", 1-1/2", 1-3/4", 2", 2-3/16", 2-3/8",2-1/2", 2-11/16", 2-3/4", 3", 4", 4-3/4") Material: For all types of ceramics, gres porcelain, terracotta tiles, granite and marble. Application: For furniture and bathroom fittings and electric and plumbing systems.

Perfect for drilling: porcelain stoneware, hard ceramic, granite, marble Speed: Very High Finish: Good Lifespan: Good Use: Flexible angle grinder.





DIAMOND CORE-BITS FOR DRY DRILLING



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Reference: FAJ (MONDRILLO JR)

Machinery: Diamond Core-Bits for dry drilling Features, Diameters, Observations:

- Use: dry and wet
- Diameter: 5-6-8-10-12 mm (3/16", ¼", 5/16", 3/8", ½")
- Material: All types of ceramics, gres porcelain, terracotta tiles, granite, marble, glass.
- Application: For furniture and bathroom fittings, electric and plumbing systems.
- Speed: High
- Finish: Good
- Lifespan: Good
- Use: Universal drill and cordless drill (recommended minimum rpm 800).



COOLING FLUID



Sales Contact: Brevetti Montolit SpA

Company headquarters: Largo Cav. Montoli - 21050 Cantello (VA) Italy Via Varese, 4/A - 21050 Cantello (VA) Italy

Legal head office: Via Turconi, 25 - 21050 Cantello (VA) Italy Tel. +1 604 353 99 64 Tel. +39 0332 419 206 Tel. +39 0332 419 230 e-mail: export@montolit.com web: www.montolit.com



Reference: M-Performer

Machinery: Cooling fluid Features, Diameters, Observations:

 Cooling fluid for optimal performance of diamond core bits (diameters up to 12 mm) (1/2"). When drilling, switch the machine off and sink the drill bits into fluid for a couple of seconds.

DIAMOND HAND PADS



Brevetti Montolit SpA

Company headquarters: Largo Cav. Montoli - 21050 Cantello (VA) Italy Via Varese, 4/A - 21050 Cantello (VA) Italy

Legal head office: Via Turconi, 25 - 21050 Cantello (VA) Italy Tel. +1 604 353 99 64 Tel. +39 0332 419 206 Tel. +39 0332 419 230 e-mail: export@montolit.com web: www.montolit.com



Reference: DT262

Machinery: Diamond hand pads Features, Diameters, Observations:

- Main purpose: Ideal for smoothing and finishing ceramic, glass and porcelain tile corners and edges and marble and granite coverings. Excellent for smoothing and rounding sharp edges were tiles are cut to increase their mechanical strength.
- Instructions for use: Rub the pad on the surface to be treated, using the entire diamond surface so as to maximize service life.
- Characteristics: Made using a special diamond deposition technology, the pads come in two different diamond grain sizes to suit the material to be worked: - medium (art. DT060), in blue, for hard tile, porcelain tile, klinker and granite - fine (art. DT200), in red, for single-fired tiles, double-fired tiles, terracotta, marble and glass.



| GRESCUT | |
|---------|--|
| | |

| Туре | Diameter | Segment thickness | Segment height | Bore | Steel Core |
|---------|----------|-------------------|----------------|-------|------------|
| Grescut | 360 | 3 | 10 | 60/50 | NRM/SIL |

| Porcelain Tile Thickness | RPM FOR Ø360 | Feed speed ML/min |
|--------------------------|--------------|-------------------|
| 3 mm/3+ | 2150 - 2500 | 1,5 - 1,8 |
| 6 mm/6+ | 2150 - 2500 | 1,2 - 1,5 |
| 12 mm/12+ | 2150 - 2500 | 1,0 - 1,2 |
| 20 mm | 2150 - 2500 | 0,8 - 1,0 |

Our suggestions:

While entering and exiting the cut, reduce the speed feed by 40 - 50%
 While cutting at 45°, reduce the speed feed by 40%



13. CLEANING PRODUCTS



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MANUAL

NEOLÌTH TECHNICAL

| ACRYCLEAN | | |
|---|----------|--|
| AKEMI® | | |
| An absolutely pure solvent to clean different surfaces without leaving any residue. | | Aargeleen |
| Field of application: • to clean and degrease before gluing and coating • removes grease, oil and silicone residue, wax, tea incrustations, tree resin remains, sealants and glue • removes stickers, laminas and adhesive tape • to smooth and remove sealant | | Address and a set of the set of t |
| Container | Units | Ref. number |
| 500ml sprayer 11 bottle | 12 12 | Neolith - 720-511 AKEMI - 87603 AKEMI - 87600 |

EPOXY REMOVAL

AKEMI[®]

A highly effective solvent-based cleaning product that is free of acids, bleach and chlorinated hydrocarbons. No pe

Field

| Field of application: To remove mortar remains from epoxy resin-based joints, resin residue, sealant, adhesive remains and similar soiling from indoor and outdoor Sintered Stone. Due to the liquid and gel-like consistency, it works quite well on vertical surfaces. | | PORT REPORT |
|--|-------|-----------------------------------|
| Container | Units | Ref. number |
| 1l bottle | 6 | Neolith - 720-506 AKEMI - 11983 |

AKEMI



GRAFFITI CLEANING AKEMI[®] AKEMI A very effective, gel-like blend of solvents. Field of application: Removes graffiti paint and drawings made with markers from unprotected, solvent-resistant surfaces. GRAFFITI-ENTFERNER GRAFFITI-REMOVER LIMPIEZA DE GRAFFIT 6 AKEMI - 10880 1l bottle

| DEOXYGENATION | | |
|---|--|---|
| AKEMI® | AKEME AK | |
| A concentrated, acidic cleaning product that is free of hydrochloric acid and is biodegradable. Field of application: To effortlessly remove oxide stains from Sintered Stone acid-resistant surfaces. | | |
| Container | Units | Ref. number |
| 1l bottle 5l jug 1l can (paste) | 6 2 6 | AKEMI - 10814 AKEMI - 10815 AKEMI - 10824 |

SOLVENT

AKEMI[®]

A product made of highly-effective solvents, surfactants and emulsifiers that is free of chlorinated hydrocarbons and is biodegradable.

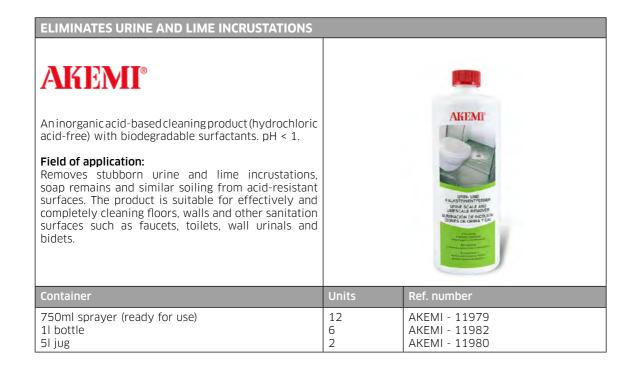
Field of application:

To effortlessly remove tar and polish. It even dissolves layers of wax that are very difficult to remove as well as polish from Sintered Stone.

| Container | Units | Ref. number |
|-----------|-------|---------------|
| 1l bottle | 6 | AKEMI - 10816 |

KEMI

AKEMI



BASIC CLEANING

AKEMI®

A highly-concentrated low-alkaline cleaning product that is free of phosphates and bleach and which is biodegradable, inoffensive to human health in the food sector (confirmed by an external German testing institute).

Field of application:

For deep cleaning, to remove soiling from construction work, the wax and protective layers of the stone, cement stains, oil and grease, soot and tar, acrylic paint remains as well as plaster from Sintered Stone.

| Container | Units | Ref. number |
|---|--------------|---|
| 250ml bottle (ready for use) 1l bottle 5l jug | 20 6 2 | Neolith - 720-512 AKEMI - 10808 AKEMI - 10812 AKEMI - 10813 |

Products for countertops, sinks and shower trays

| TECHNO CERAMIC INTENSIVE CLEANER | | |
|--|-------|-----------------------------------|
| A ready-to-use cleaning product to remove heavy soiling and/or incrustations on Sintered Stone surfaces. This product can also be used to clean kitchen sinks. Can be supplied in a practical sprayer. Field of application: Intensive cleaning of food remains, light oil and grease stains and fine layers of treatment products, rubber and protective products. 1. Evenly apply to the surface to be treated. 2. Spread with a damp cloth or sponge and leave for only a little bit of time. Do not let it dry! 3. Then, clean the dirt with a damp cloth and rinse with water. Rube with a clean, hair-free cloth until there are no stripes or streaks. | | |
| Container | Units | Ref. number |
| 500ml spraver | 12 | Neolith - 720-510 AKEMI - 12026 |

TECHNO CERAMIC DAILY CLEANER

AKEMI°

A ready-to-use spray cleaning product, which is free of surfactant-based acids and bleach, auxiliary substances, aromas and alcohol and free of substances containing phosphates, which is biodegradable, inoffensive to human health in the food sector (confirmed by an external German testing institute).

Field of application:

For daily cleaning of light soiling (i.e. fine layers of oil and grease, dried beverages) on high-tech largesize ceramic surfaces, especially from countertops, display counters and sinks.

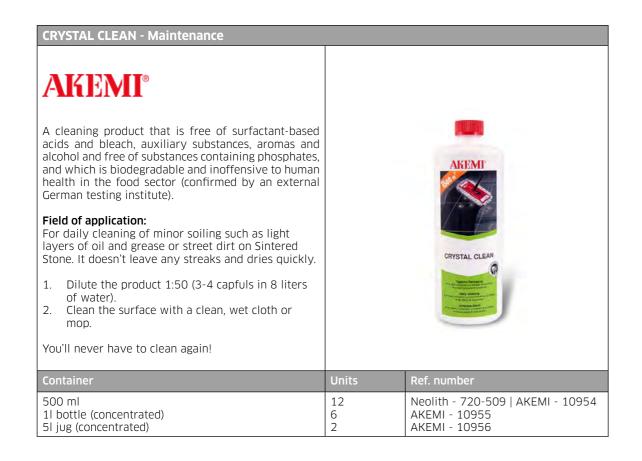
Also removes light lime stains. For this reason, it's also excellent for cleaning ceramic shower trays and faucets. The quick-dry formula ensures a streak-free surface.

- 1. Shake before using, then open the valve.
- 2. Evenly apply to the surface to be treated.
- 3. Clean the surface with a clean, dry cloth.

| Container | Units | Ref. number |
|---------------|-------|---------------|
| 500ml sprayer | 12 | AKEMI - 12027 |



Products for floors and facades



| INTENSIVE CLEANER - Basic Cleaning | | |
|--|--------|--|
| AKEMI® | | |
| A high-alkaline concentrated cleaning product with anionic surfactants, auxiliary agents and solvents. Field of application: To deep clean Sintered Stone surfaces in kitchens, occupied rooms, grocery stores, workshops and other industrial companies. This alkaline product easily and quickly removes stubborn soiling such as oil and grease, soot, rubber stains, different waxes and emulsions with real shine. 1. First wet the surface with clean water. 2. Apply the diluted product (mix 1:2 to 1:20), | | |
| brush and leave for approx. 10 min.3. Work the surface with a brush / mop or a buffer.4. Collect the dirty water and then rinse abundant-ly with clean water. | | And the second s |
| Container | Units | Ref. number |
| 1l bottle 5l jug | 6 2 | Neolith - 720-505 AKEMI - 119 AKEMI - 11921 |

| ACID CLEANER - Limpieza Final de Construcción | ı | |
|---|--------|--|
| AKEMI® | | |
| Concentrated cleaning product based on organic acids with non-ionic surfactants and auxiliary subs- tances, no corrosive vapors, no solvents, little odor. | | |
| Field of application | | AKEMI |
| To remove remains of cement, mortar and lime as well as layers of care products and remains of joint material made of modified polymers on acid-resis- tant surfaces of Sintered Stone. | | |
| Pre-wet the surface with clean water. Apply the diluted product (mixing ratio 1: 2 to 1:20), brush and leave for approx. 10 minutes. Work the surface with a brush / mop or a mono-disc machine. Collect dirty water and then rinse thoroughly with clean water. | | |
| Container | Unit | Ref. Number |
| 1l bottle 5l jug | 6 2 | Neolith - 720-504 AKEMI - 11985 AKEMI - 11986 |

SAFETY DATABASE

From all the available information about Neolith, The Size has prepared a Safety Data Sheet as specified in the REACH Regulation (EC) N° 1907/2006.

The purpose of this guide is to provide employees general information and guidance on how to handle the product during all activities, to promote and improve working conditions and to minimize potential risks through the implementation of the risk management measures proposed in this document.

Because of the product characteristics, employees should be aware that during cutting and/or polishing of Neolith, they may come in contact with breathable airborne crystalline silica (quartz). Prolonged or massive inhalation of breathable crystalline silica may cause pulmonary fibrosis, commonly known as silicosis. The main symptoms include coughing and difficulty breathing. Therefore TheSize recommends wet cutting and polishing to reduce the exposure to breathable crystalline silica dust to a minimum.

According to Regulation (EC) N^{\circ} 1907/2006 Version 2 Print date 21.12.2011 Revision date 21.12.2012, the finished product (porcelain tile) presents no risk to human health and the environment. Because of generation of silica dust in the dry manipulation processes the following risks must be taken into account:

| Regulation CLP CE Nº 1272/2008 | Classification according Directive |
|--|---|
| Crystalline silica dust | 1999/45/CE |
| Precautionary statements | |
| | × |
| P260: Do not breathe dust generated in the cutting, shaping and polishing of the material. | |
| P264: | R20: |
| Wash hands and face thoroughly after handling | Harmfull by inhalation |
| P270: | R48 : |
| Do not eat, drink or smoke when manipulating | Danger of serious damage to health by prolongued exposure |
| P280: | S22: |
| Wear gloves, suitable work clothing and goggles | Do not breathe dust |
| P284: | S38: |
| Wear respiratory protection for particles (P3) | In case of insufficient ventilation wear suitable respiratory |
| P314: Consult doctor if feeling unwell | equipment (P3) |
| P501 Remove residues in accordance with local regulations | |

Additional Information:

According to information provided, the testing of the product has not detected or cristobalite or tridymite, which are the more silicaceous and dangerous varieties.

More detailed information regarding safety and health standards and recommendations is available on <u>www.neolith.com</u> (Downloads: Safety Data Sheets section).

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MANUAL

TECHNICAL

Neolith



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